

Appl. No.: 10/731,951
Amdt. dated 12/19/2005
Reply to Office action of 09/28/2005

Amendments to the Claims:

1. (currently amended) An apparatus for collecting solar energy, the apparatus comprising:
a receiver extending along an axis and defining a passage for receiving a heat transfer fluid;
~~a concave mirror configured to reflect solar radiation toward the receiver; and~~
an optical lens positioned adjacent the mirror, the lens being configured to direct solar radiation toward the receiver; and
a concave mirror positioned adjacent the lens, the mirror being configured to receive solar radiation not passing through the lens and reflect the solar radiation toward the receiver,
wherein the mirror and lens are configured to direct different amounts of solar radiation toward the receiver and thereby heat the receiver at first and second rates, respectively, during similar solar conditions.
2. (original) An apparatus according to Claim 1 wherein the mirror is parabolic and configured to reflect solar energy toward the receiver.
3. (original) An apparatus according to Claim 1 wherein the mirror is rotatable about the axis of the receiver such that the mirror can receive solar radiation from various directions and direct the solar radiation toward the receiver.
4. (currently amended) An apparatus according to Claim 1 wherein the lens is adjustably supported ~~adjustable~~ relative to the mirror.
5. (original) An apparatus according to Claim 1 wherein the lens and mirror are rigidly attached.
6. (original) An apparatus according to Claim 1 wherein the lens is a fresnel lens structured to at least partially refract light passing therethrough.

Claims 7-40 (cancelled).

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41. (New) An apparatus according to Claim 1, further comprising a drive mechanism for adjusting the lens relative to the mirror.

42. (New) An apparatus according to Claim 1 wherein the mirror is configured to direct a greater amount of solar radiation toward the receiver than the lens during similar solar conditions.

43. (New) An apparatus for collecting solar energy, the apparatus comprising:
a receiver extending along an axis and defining a passage for receiving a heat transfer fluid;

a concave mirror configured to reflect solar radiation toward the receiver; and
an optical lens positioned adjacent the mirror, the lens being configured to direct solar radiation to the receiver,

wherein at least one of the mirror and lens is adjustably supported and thereby configured to adjust between first and second positions, the mirror in the first position being configured to receive a first amount of solar radiation not passing through the lens and direct the solar radiation toward the receiver, and the lens in the second position being configured to direct a second amount of solar radiation toward the receiver, the first and second amounts of solar radiation being different such that the mirror and lens are adapted to selectively heat the receiver at first and second rates during similar solar conditions.

44. (New) An apparatus according to Claim 43 wherein the mirror is parabolic and configured to reflect solar energy toward the receiver.

45. (New) An apparatus according to Claim 43 wherein the mirror is rotatable about the axis of the receiver such that the mirror can receive solar radiation from various directions and direct the solar radiation toward the receiver.

46. (New) An apparatus according to Claim 43 wherein the lens is adjustable relative to the mirror.

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47. (New) An apparatus according to Claim 43 wherein the lens and mirror are rigidly attached.

48. (New) An apparatus according to Claim 43 wherein the lens is a fresnel lens structured to at least partially refract light passing therethrough.

49. (New) An apparatus according to Claim 43 wherein the mirror and lens extend along the axis of the receiver generally parallel to the receiver.

50. (New) An apparatus according to Claim 43 wherein the mirror and lens are independently adjustably about the axis of the receiver.

51. (New) An apparatus according to Claim 43, further comprising a drive mechanism for adjusting the lens relative to the mirror.